DOCUMENT RESUME

ED 294 070 CG 020 736

AUTHOR Westbrook, Heloise Demoin; Sarvela, Paul D.
TITLE An Impact Evaluation of a Rural Southern Illinois Community Health Education Geriatric Care Staff-Training Program. [Revised].
PUB DATE 87
NOTE 13p.; An earlier version of this paper was presented at Health Care Association (Nashville, TN, May 6, 1987).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Client Characteristics (Human Services); *Community Health Services; Health Personnel; *Home Programs; *Older Adults; Program Evaluation; *Stress Management; *Training; *Work Environment

ABSTRACT

The increasing numbers of elderly persons in the United States has resulted in the need for community programs which enable the elderly to remain in their homes. It appears that home health care is one method of providing needed basic assistance to the rural elderly population in a cost-efficient manner. This study was conducted to examine the impact of a geriatric care staff-training program on two problem areas frequently present in the home health care worker environment: worker stress management and the incontinent client. Data were collected from 158 rural/small town home health care trainees and analyzed using a separate-simple pretest-posttest evaluation design. The results indicated that there was a statistically significant increase in knowledge between pretest and posttest scores in the areas of both worker stress management and the incontinent client. Posttest data also suggest that the program had a positive impact on trainee attitudes concerning stress management and the incontinent client. This report describes the results of the impact evaluation of the community health education program and provides recommendations for future program development. (Author/NB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED294070

AN IMPACT EVALUATION OF A RURAL SOUTHERN ILLINOIS COMMUNITY HEALTH EDUCATION GERIATRIC CARE STAFF-TRAINING PROGRAM *

Heloise Demoin Westbrook, Ph.D.
Research Assistant

Paul D. Sarvela, Ph.D.
Assistant Professor

Department of Health Education
College of Education
Southern Illinois University at Carbondale

CG 020736

*An earlier version of this paper was presented at the annual meeting of the National Rural Health Care Association, Nashville, Tennessee, May 6, 1987.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Paul Sarvela

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

AN IMPACT EVALUATION OF A RURAL SOUTHERN ILLINOIS COMMUNITY HEALTH EDUCATION GERIATRIC CARE STAFF-TRAINING PROGRAM

ABSTRACT

Data were collected from 158 rural/small-town home-health care trainees in November 1986 concerning the impact of a geriatric care staff-training program on two problem areas frequently present in the home-health care worker environment: (1) worker stress management and (2) the incontinent client. Using a separate-sample pretest-posttest evaluation design, the results indicated that there was a statistically significant increase in knowledge between pretest and posttest scores [$t(156) = 7.329$, $p < .0001$] in both worker stress management and the incontinent client. Posttest data also suggested that the program had a positive impact on trainee attitudes concerning stress management and the incontinent client. This report describes the results of an impact evaluation of a rural/small town community health education program and provides recommendations for future program development.

INTRODUCTION

An increased life expectancy (74 years life expectancy today compared to 47 years in 1900) has significantly enlarged the elderly population in the United States today. Because of the increasing numbers of elderly people in our society, there is a real need for community programs which enable the elderly to remain in their home environment, as opposed to institutionalization. Given that "many rural and inner-city areas are still experiencing shortages of all health personnel despite the increases in supply" (Green & Anderson, 1986, p 481), it appears that home-health care is one method of providing basic assistance to the rural elderly population in a cost-efficient manner.

One such community support program is coordinated and implemented by the Illinois Department on Aging, and monitored by the Egyptian Area Agency on Aging (EAAA), located in Carterville, Illinois. EAAA evolved from "The Older American Act" of 1965, which acknowledged the needs of a growing elderly population. Through this program, homemakers and choreworkers assist elderly clients who are functionally or mentally impaired, in such tasks as cooking, cleaning, laundry, shopping and general hygiene (e.g. shaving, bathing). The program is funded by medicare reimbursement, general revenue funds from the state, as well as an "ability to pay" fee by the clients.

In addition to a preemployment training program, homemakers and choreworkers are required by the State of Illinois to receive 12 hours of "inservice" training each year. This evaluation report describes a training program which was designed to teach homemakers and choreworkers: (1) the physiological and psychological problems associated with elderly incontinence and constipation as well as practical approaches in dealing

with clients who have problems with constipation and incontinence and (2) homemaker and choreworker stress due to an over-involvement with clients, and effective ways of coping with this stress. This evaluation project was designed to assess immediate changes in knowledge and attitudes as a result of the training program.

METHOD

Sample. The purposive sample was comprised of all homemakers and choreworkers (hereafter referred to as trainees) from southern Illinois who attended the staff-training program (N = 158). The demographic data indicated that 49.67% of the trainees were above the age of 45, 56% were married, 46% were high school graduates, and 36% were Certified Nurses Aids. All trainees were females. The study took place in several counties located in southern Illinois. EAAA serves the southern 13 counties in Illinois, the most rural region of the state. (EAAA's central office is Carterville, Illinois, a small town of about 3,800 people.) Farming and coal mining are major industries of this region, and the closest metropolitan area is St. Louis, which is approximately 90 miles from Carterville.

Evaluation Design. A separate-sample pre- and post-test evaluation design (Campbell & Stanley, 1966) was selected to measure the impact of the program on trainee knowledge. Trainees were randomly assigned to either the pretest or posttest group. This evaluation design is ideally suited to "short-term" training settings, where the effects of "testing" can pose problems related to internal validity. In addition, because the program was three hours in duration, and delivered at one time, no outside factors (history), differential maturation problems, or mortality factors were

present. These conditions made the selected evaluation design ideal. The separate-sample pre- and post-test design appears as Figure 1.

Figure 1: Evaluation Design

R O1 X

R X O2

where: R = random assignment

O1 = pretest

O2 = posttest

X = treatment

Instrument. The data collection instrument was based on curriculum materials (e.g. training manual, activities, discussion topics) used in the training program. A 30 item questionnaire measured trainee knowledge concerning constipation, incontinence, and stress management. Eight additional Likert-type items were developed to assess trainee attitudes concerning the overall quality of the training program, based on the work of Bradburn and Sudman (1979) and Windsor and Cutter (1981).

The instrument was pilot tested with 45 Certified Nursing Assistants (CNAs) employed at two nursing homes in Carbondale, Illinois. The CNAs were asked to complete the instrument as well as provide comments regarding its overall readability. Based on pilot test item analyses and CNA comments, items were reworded, modified, added, or deleted.

A readability index was calculated using the McLaughlin (1969) SMOG grade-level method. The initial readability index was at the 9th grade reading level. After revising some of the polysyllabic words, (i.e. the words older and bad were substituted for elderly and abusive), the instrument had a 7th grade level. Instrument validity was assessed by a panel of experts consisting of nurses, a nurse practitioner, and several

health educators. The panel was asked to determine whether the instrument's content was consistent with the curriculum objectives, in terms of item-objective consistency. Based upon the recommendations of the panel, the instrument was refined, producing the final instrument. Instrument reliability was estimated at .89 using the KR-20 internal-consistency reliability coefficient.

Curriculum. Students enrolled in HED 491 (Health Teaching and Learning Development) at Southern Illinois University, Carbondale, developed and implemented the educational materials through guidelines put forth by EAAA. The materials consisted of lectures, case studies, demonstrations, small-group interaction, and role playing. All materials were presented by HED 491 students over a three hour session. The objectives of the stress management section of the program were to enable the trainees to:

1. identify stressful situations when dealing with a client
2. list how to appropriately deal with those situations of stress
3. identify situations of emotional involvement with a client
4. describe how to deal appropriately with emotional involvement
5. list three effective ways to say "no"
6. list signs and symptoms of stress
7. describe techniques for coping with stress
8. identify the communication skills which are most effective in dealing with situations of stress

and emotional involvement

The objectives for the incontinence and constipation segment of the program were for the trainee to be able to:

1. define and understand incontinence
2. identify factors contributing to incontinence
3. assist the client in maintaining continence, adequate fluid intake and frequent toileting pattern
4. understand the facts and fallacies related to incontinence
5. define and understand constipation
6. identify physiological processes involved with bowel movements
7. identify the optimal time and frequency of a bowel movement
8. assist the client in promotion of regular bowel movements, nutrition, exercise and fluid intake

RESULTS

The mean score for the pretest group was 19.005, with a standard deviation of 13.75, while the posttest group mean was 23.628, with a standard deviation of 12.66. A *t*-test indicated that there was a statistically significant increase [$t(156) = 7.329$, $p < .0001$.] between pretest and posttest scores (Table 1).

insert Table 1 about here

In addition, attitudinal data suggested that over 80% of the trainees considered the workshop effective. About 85% of the trainees agreed or strongly agreed that the program would help them "cope" better with their work, and over 90% agreed that the program increased their knowledge concerning stress and incontinence. Further, over 80% of the trainees indicated that they liked the content, found the program interesting, and enjoyed the presentation. These data appear as Table 2.

insert Table 2 about here

DISCUSSION

The results of this evaluation suggested that there was a significant knowledge gain between pretest and posttest scores, indicating that the training program was effective in increasing the knowledge of the trainees concerning the program topics. In addition, the trainees indicated that the program would help them in their future work, and that they enjoyed the program.

Although it appears that the various threats to internal validity were controlled for through the evaluation design, specific events may have occurred which pose problems in the interpretation of the results. For example, trainees who completed the pretest were asked not to discuss any of the test questions with other trainees until the workshop was completed. During the coffee break, trainees may have discussed pretest material with those who did not take the pretest, therefore contaminating the results of the posttest. There are no data to suggest that this happened or did not happen, but it is possible that this may have occurred.

With regard to external validity, the Hawthorne Effect could have biased the evaluation results, because the subjects were aware that they were being measured. In addition, the Social-Desirability Effect may have been present, with trainees answering the questionnaire in a way in which they felt would please the evaluators. Finally, one cannot say this sample was representative of all home-health care workers in the United States, therefore, researchers are advised to interpret the results carefully when generalizing to other settings.

RECOMMENDATIONS

The purpose of this study was to evaluate the effectiveness of a training program in a specific rural/small-town population of home-health care trainees, rather than generalize the results of this study to other settings. On the basis of our findings, it appears that the program was effective for this sample, however, there is a need for additional study in the area of home-health care training programs in rural geographic locations.

The most important recommendation is for EAAA to conduct a comprehensive needs assessment. This would enable program development specialists to design and develop training programs which best suit the needs of this unique population. In addition, evaluators could compare program outcomes against the prespecified goals and objectives which were developed on the basis of the needs assessment.

Another evaluation consideration would be to provide a follow-up study in the field, so as to examine long-term outcomes of the program. The present study evaluated only the immediate impact of the program on trainee knowledge and attitudes. An examination of homemaker/choreworker behaviors in the field would be appropriate, to assess any changes in the quality of care provided to the elderly population as a result of this program.

Finally, a more geographically dispersed, representative sample, should greatly enhance the generalizability of the results of this study and future studies, to other settings.

REFERENCES

Bradburn, N.M. & Sudman, S. (1979). Improving Interview and Questionnaire Design. San Francisco: Jossey-Bass.

Campbell, D.T. & Stanley, J.G. (1966). Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally.

Green, L.W. & Anderson, C.L. (1986). Community Health (5th ed.), St. Louis: Times Mirror/Mosby.

McLaughlin, G. (1969). SMOG grading - a new readability formula. Journal of Reading, 12, 639-46.

Windsor, R.A., & Cutter, G. (1981). Methodological issues in using time series designs and analysis: Evaluating the behavioral impact of health communication programs. In C. Mettlin and G. Murphy (Eds.), Progress in Clinical and Biological Research, Vol. 83: Issues in screening and communications, pps. 517-35, New York: Alan R. Liss.

ACKNOWLEDGEMENTS

We would like to thank Ms. Debbie Roberts of EAAA and Dr. Eileen Zunich of SIU-C for their help on this project.

Table 1: Knowledge Test Results as a Function of Training Program Content Among Home-Health Care Trainees in Southern Illinois in November, 1986

	Pretest	Posttest
N	78	80
Mean	19.005	23.628
Std. Dev	13.75	12.66

$t(156) = 7.329$, $p < .0001$

Table 2: Perceptions of Training Program Effectiveness Among 158 Home-Health Care Trainees (Expressed in Percent)

N = 158

	SA	A	N	D	SD
The training program was effective	37.7	53.1	6.9	1.5	0.8
You liked the content	35.9	50.4	11.4	1.5	0.8
The new information will help you cope better with your work	31.3	54.7	9.4	2.3	3.9
The presenter did a good job	38.9	54.9	4.6	0.8	0.8
The training program was interesting	36.9	52.3	8.5	1.5	0.8
You liked the method of presentation	34.9	54.3	7.7	0.8	2.3
The workshop increased your understanding of incontinence and constipation	42.2	51.6	5.5	0.0	0.8
The workshop increased your understanding about stress	46.1	47.7	0.8	0.0	1.5

SA = Strongly Agree
A = Agree
N = No Opinion
D = Disagree
SD = Strongly Disagree